

Via Electronic Mail

January 8, 2019



Ms. Hoshaiha Barczynski & Mr. James Brown  
Remediation Project Managers  
USEPA – New England Region  
OSRR, NH and RI Superfund Section  
5 Post Office Square, Suite 100  
Mail Code OSRR07-1  
Boston, MA 02109-3912

Mr. Paul Kulpa  
Senior Environmental Scientist  
Rhode Island Department of  
Environmental Management  
235 Promenade Street  
Providence, RI 02908

Re: OU 2 RI/FS Implementation L&RR Superfund Site  
North Smithfield, Rhode Island  
Reporting Period: October 1, 2018 – December 31, 2018

Dear Ms. Barczynski, Mr. Brown, and Mr. Kulpa:

This quarterly progress report is submitted to the U.S. Environmental Protection Agency (USEPA) and Rhode Island Department of Environmental Management (RIDEM) documenting activities completed during the above referenced period for which implementation of the Remedial Investigation/Feasibility Study (RI/FS) for Operable Unit 2 (OU 2) of the L&RR Superfund Site remains on-going. Quarterly progress reports are submitted in accordance with Section IX. 51 to the Administrative Settlement Agreement and Order on Consent (AOC; effective date August 17, 2015).

### **1.0 Quarterly Work Summary**

- Field survey of the northern borehole, BH18-1, and the MW-308 A/B/C overburden wells by DiPrete Engineering on October 22, 2018. This elevation data will be used to update existing site plans and support groundwater flow estimates. Refer to Figure 1 for an overview of these locations.
- On November 1, 2018, Woodard & Curran returned to BH18-1, for well re-development prior to sample collection on November 12, 2018. This activity was preceded by correspondence received from USEPA on October 3, 2018 which concurred with the prior recommendation to maintain this location as an open borehole, without installation of a CMT multi-level system, presuming there were no changes in specific capacity following re-development. Specific capacity test results prior to and following re-development, did not result in observable changes in flow, which supported the recommendation to keep BH18-1 as an open borehole. The BH18-1 borehole will also be supplemented by efforts to install a shallow bedrock well to intersect a high yield fracture at approximately 52-feet during future pre-design activities in accordance with the USEPA's October 3, 2018 correspondence.
- Groundwater samples were collected at BH18-1 and MW-308 A/B on November 12, 2018. The shallow overburden well, MW-308C, lacked enough groundwater to support sample collection at the time. Site-wide, synoptic water level measurements were also obtained to develop updated groundwater flow plans for the RI Report.
- Coordinating additional genomic analyses to assess microbial community composition with the monitored natural attenuation treatability subcontractor, Sentinel Environmental. This supplementary work involved 16S rRNA gene sequencing and real-time quantitative polymerase



chain reaction (qPCR) analysis of total bacteria (16S) and two known 1,4-dioxane gene degraders (*thmA* and *prmA*). The test determined that the microbial community was dominated by Proteobacteria which are not typically known to induce 1,4-dioxane biodegradation. The qPCR results did not identify the *thmA* and *prmA* genes in site media. A summary of test results and outcomes will be provided in the FS Report.

- Preparing for and attending a technical meeting on November 21, 2018 at USEPA's office in Boston, MA. This meeting was requested by USEPA in advance of the transition from Ms. Anna Krasko as the Remedial Project Manager (RPM) to the team of Mr. James Brown and Ms. Hoshiaiah Barczynski.
- On December 20, 2018, a summary of potential standards for comparison of results as part of the nature and extent discussion in the RI report were provided for USEPA review. This draft submittal included a series of spreadsheets along with a hierarchical summary of proposed standards/guidelines.
- Developing a draft schedule for completion of remaining RI/FS activities and corresponding reports.
- Submitting Human Health Risk Assessment Deliverable No. 3 on December 27, 2018 to determine risks and hazards associated with analytical compounds detected in Site media. This submittal included the remaining RAGS-D tables that will serve as the basis for the Baseline Human Health Risk Assessment (BHHRA) that is scheduled to be submitted on March 15, 2019.

## **2.0 Problems Identified and Response Actions Taken**

- None to report during this reporting period.

## **3.0 Out of Scope Work**

- None to report during this reporting period.

## **4.0 Status of USEPA/RIDEM Action Items from Previous Quarterly Report**

- None specific to Quarterly Status Report No. 10.

## **5.0 Data and Results**

- Provided USEPA with individual summaries of results from the second round of Pre-ROD sampling and the third round of PFAS analysis.

## **6.0 Planned Work for the Next Quarter**

- Updating the BHHRA, RI, and FS Reports.



If you have any questions or would like to further discuss these results, please do not hesitate to contact me.

Sincerely,

WOODARD & CURRAN INC.

Alan Benevides, P.E., L.S.P.  
Senior Project Manager

AAB/ams

Attachment: Figure 1: Updated Site Plan

PN: 229620.01





**Figure 1**

**Updated Site Plan**

L&RR Superfund Site  
OU 2 Remedial Investigation  
/Feasibility Study

**Legend**

**Existing Hydrogeological Locations**

- Bedrock Multi-Level System
- Bedrock Borehole
- ⊕ Geoprobe Groundwater
- ⊕ Monitoring Well
- ⊕ Overburden Multi-Level System
- ⊕ Piezometer
- ⊕ Residential Well
- ⊕ Waterloo Profile
- Proposed Location of New Bedrock Borehole & Associated Monitoring Well
- Roads
- - - Interpolated Parcel Boundaries
- - - Stream Channel

Notes  
1. Parcel boundaries interpreted from May 2012 Existing Site Plan (Drawing C-01) and the Town of North Smithfield (November 2013) and may not reflect on-the-ground accuracy.  
2. Data displayed in NAD83 RI State Plane and NAVD88  
3. Orthophotography from USGS, April 2014.

1 inch = 300 feet  
0 150 300 Feet



Project #: 229620  
Map Created: July 2018

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources: USGS, City of North Smithfield, RI**